

WHAT IS CLAIMED IS:

1                   1.     A system for receiving electromagnetic and optical signals comprising:  
2                   a first reflecting device for reflecting the electromagnetic and optical signals;  
3                   an electromagnetic receiver for receiving the reflected electromagnetic waves,  
4     wherein the electromagnetic receiver comprises a second reflecting device for reflecting the  
5     optical signals; and  
6                   an optical receiver for receiving the optical signals reflected from the  
7     electromagnetic receiver.

1                   2.     The system of claim 1, wherein the first reflecting device comprises a  
2     parabolic dish.

1                   3.     The system of claim 1, wherein the first reflecting device comprises a  
2     material to reflect the optical signals.

1                   4.     The system of claim 3, wherein the material comprises a mirror-like  
2     material.

1                   5.     The system of claim 1, wherein the first reflecting device comprises a  
2     material to reflect the electromagnetic signals.

1                   6.     The system of claim 5, wherein the material comprises a metallic  
2     material.

1                   7.     The system of claim 6, wherein the metallic material is polished to  
2     reflect optical signals.

1                   8.     The system of claim 1, wherein the optical signals comprise infrared  
2     signals.

1                   9.     The system of claim 1, wherein the electromagnetic signals comprise  
2     radio frequency signals.

1                   10.    The system of claim 1, wherein the electromagnetic signals comprise  
2     microwave signals.

- 1                    11.    The system of claim 1, wherein the second reflecting device comprises  
2    a material capable of reflecting optical signals.
- 1                    12.    The system of claim 12, wherein the material comprises a mirror-like  
2    substance.
- 1                    13.    The system of claim 1, wherein the first reflecting device reflects the  
2    electromagnetic and optical rays to a focus area, wherein the focus area includes the  
3    electromagnetic receiver.
- 1                    14.    The system of claim 1, further comprising a transmitting system  
2    comprising an optical transmitter.
- 1                    15.    The system of claim 1, wherein the electromagnetic receiver is  
2    designed to transmit electromagnetic signals.
- 1                    16.    A system for receiving electromagnetic and optical signals comprising:  
2                    a receiver designed to receive the electromagnetic signals, wherein the  
3    receiver includes an aperture where the electromagnetic signals are received through;  
4                    at least one lens covering at least a portion of the aperture, wherein the lens is  
5    designed to bend the optical signals;  
6                    at least one optical receiver designed to receive the bent optical signals; and  
7                    an electromagnetic receiver designed to receive the electromagnetic signals  
8    received by the receiver.
- 1                    17.    The system of claim 16, wherein the receiver comprises a horn.
- 1                    18.    The system of claim 16, wherein the optical signals comprise infrared  
2    signals.
- 1                    19.    The system of claim 16, wherein the electromagnetic signals comprise  
2    radio frequency signals.
- 1                    20.    The system of claim 16, wherein the electromagnetic signals comprise  
2    microwave signals.

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1                    21.     The system of claim 16, wherein the lens is designed to allow  
2 electromagnetic signals to pass through the lens.

1                    22.     The system of claim 16, further comprising a transmitting system  
2 comprising an optical transmitter.

1                    23.     The system of claim 16, wherein the electromagnetic receiver is  
2 designed to transmit electromagnetic signals.

1                    24.     A broadband communications system for receiving electromagnetic  
2 and optical signals comprising:  
3                    a parabolic dish for reflecting the electromagnetic and optical signals to a  
4 focus area, the parabolic dish comprising an aperture;  
5                    an electromagnetic receiver located in the focus area for receiving the reflected  
6 electromagnetic waves, wherein the electromagnetic receiver comprises a reflecting device  
7 for reflecting the optical signals through the aperture; and  
8                    an optical receiver for receiving the optical signals reflected through the  
9 aperture from the electromagnetic receiver.

1                    25.     The system of claim 24, wherein the optical signals comprise infrared  
2 signals.

1                    26.     The system of claim 24, wherein the electromagnetic signals comprise  
2 radio frequency signals.

1                    27.     The system of claim 24, wherein the electromagnetic signals comprise  
2 microwave signals.